

- (21) Application No. 1097/76 (22) Filed 12 Jan. 1976  
 (31) Convention Application No. 2570/75 (32) Filed 8 Oct. 1975 in  
 (33) Yugoslavia (YU)  
 (44) Complete Specification published 11 Oct. 1978  
 (51) INT. CL.<sup>2</sup> A61K 33/14  
 (A61K 7/16 7/48)  
 (52) Index at acceptance  
 A5B 26Y 272 27Y 340 34Y 381 38Y 772



## (54) ANTI-INFLAMMATORY COMPOSITION

(71) I, CULIBRK DJURO, of Yugoslavian nationality, 21234 Backi Jarak, Matije Gubca 42, Yugoslavia, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to an anti-inflammatory composition for application particularly to the skin, mucous membrane and oral cavity to promote the flow of blood therein and alleviate the effects of hyperaemia.

The role played by potassium ions in cellular metabolism, and their action and uses in the body have been known for a long time (see, for example, The British Pharmaceutical Codex 1968 pp 650-651).

Potassium ions are often administered to a patient by mouth or by intravenous injection in the form of aqueous solutions of potassium chloride.

The present invention, however, is based on the hitherto unexpected effects arising from the topical application of potassium ions in the form of potassium chloride to the outer surface of the skin or mucous membrane.

Thus, the present invention provides in one aspect an anti-inflammatory composition for topical application which consists of 30 weight percent distilled water, 65 weight percent plant or animal grease and 5 weight percent potassium chloride.

The application of the composition to the skin or mucous membrane has been found to speed up the circulation of blood in the external capillary blood vessels and lead to regeneration of the skin, mucous membrane and gums.

In particular the composition has been found effective in the treatment of hyperaemia, a condition arising from an excessive quantity of blood in the skin tissues.

However, the composition has also been found to have a general anti-inflammatory effect and to assist the blood circulation in the skin tissues and, as such, has found use in the treatment of diseases of the mouth (stomatology), diseases of the skin (dermatology) and certain rheumatic diseases. In addition the composition has been found to exert a therapeutic effect in assisting granulation and healing of skin wounds.

The pharmaceutically acceptable carrier is one of a wide range of such carriers suitable for topical application to the skin or mucous membrane (and including the oral cavity and gums) and well known to a man skilled in the art.

Embodiments of the invention will now be described by way of example only.

*Example I*

A cream for application to the skin was made up by intimately mixing a composition consisting of 30 weight percent distilled water, 65 weight percent plant or animal grease and 5 weight percent potassium chloride.

*Example II*

A soap base composition was made up by mixing 85 weight percent of a soap with 15 weight percent potassium chloride.

*Example III*

A soap based composition of lower viscosity and improved ease of application than that of Example III was made up by intimately mixing 50 weight percent of a soap, 38 weight percent distilled water and 12 weight percent potassium chloride.

*Example IV*

A dental composition for application to the gums was made up by mixing 10 weight percent potassium chloride with a dental paste.

## WHAT WE CLAIM IS:—

1. An anti-inflammatory composition for topical application which consists of 30 weight percent distilled water, 65 weight

percent plant or animal grease and 5 weight percent potassium chloride.

2. An anti-inflammatory composition for topical application which consists of 85 weight percent of a soap and 15 weight percent potassium chloride.

3. An anti-inflammatory composition for topical application which consists of 90 weight percent of a dental paste and 10 weight percent potassium chloride.

4. An anti-inflammatory composition for topical application which consists of 50 weight percent of a soap, 38 weight percent distilled water and 12 weight percent potassium chloride.

15<sup>7</sup>

MARKS & CLERK,  
Chartered Patent Agents  
57-60 Lincoln's Inn Fields  
London WC2A 3LS.  
Agents for the applicant.

Printed for Her Majesty's Stationery Office by The Tweeddale Press Ltd., Berwick-upon-Tweed, 1978.  
Published at the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.